On page 4, between lines 6 and 7, please insert the following heading:

DETAILED DESCRIPTION OF THE INVENTION

IN THE ABSTRACT:

Please insert the attached abstract consisting of a single sheet at the end of the application papers.

IN THE CLAIMS:

Cancel without prejudice claims 1 and 2.

Please add the following new claims:

3. (New) An ammonia synthesis catalyst, comprising iron oxides and promoters, wherein the promoters comprise both a cobalt oxide and a titanium oxide, in addition to an aluminum oxide, a potassium oxide, a calcium oxide and a magnesium oxide.

4. (New) The ammonia synthesis catalyst according to claim 3, which consists essentially of iron oxides, cobalt oxide, titanium oxide, aluminum oxide, potassium oxide, calcium oxide and magnesium oxide.

5. (New) The ammonia synthesis catalyst according to claim 3, which consists of iron oxides, cobalt oxide, titanium oxide, aluminum oxide, potassium oxide, calcium oxide and magnesium oxide.

6. (New) The ammonia synthesis catalyst according to claim 3, which contains between 0.1% and 3.0% by weight of cobalt metal.

7. (New) The ammonia synthesis catalyst according to claim 3, which contains between 0.1% and 1.0% by weight of titanium metal.

8. (New) The ammonia synthesis catalyst according to claim 3, wherein the iron oxides have an atomic ratio of Fe^{2+}/Fe^{3+} of between 0.5 to 0.65.

9. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, ~~to obtain the ammonia synthesis catalyst~~ according to claim 3.

10. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, ~~to obtain the ammonia synthesis catalyst~~ according to claim 4.

11. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, ~~to obtain the ammonia synthesis catalyst~~ according to claim 5.

12. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, to obtain the ammonia synthesis catalyst according to claim 6.

13. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, to obtain the ammonia synthesis catalyst according to claim 7.

14. (New) A method of producing an ammonia synthesis catalyst, which comprises melting magnetite or a mixture of iron oxides with promoters comprising cobalt, titanium, aluminum, calcium, potassium and magnesium to form a molten mixture,

cooling the molten mixture to form a solid, and

crushing the solid to a desired particle size, to obtain the ammonia synthesis catalyst according to claim 8.

15. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 3.

16. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 4.

17. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 5.

18. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 6.

19. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 7.

20. (New) In a process for the catalytic synthesis of ammonia, wherein H_2 and N_2 are contacted with an ammonia synthesis catalyst to catalyze the reaction of H_2 and N_2 to form ammonia, the improvement which comprises using as said ammonia synthesis catalyst the catalyst of claim 8.